

MARK PLAN AND EXAMINER'S COMMENTARY

The marking plan set out below was that used to mark this question. Markers were encouraged to use discretion and to award partial marks where a point was either not explained fully or made by implication. In many cases, more marks were available than could be awarded for each requirement. This allowed credit to be given for a variety of valid points which were made by candidates.

Question 1**Total marks: 35****General comments**

This question was, generally answered poorly and a very slim majority of candidates achieved a "pass" standard.

This was a four-part question that tested the candidates' understanding of the investment decisions element of the syllabus.

In the scenario a UK-listed media group is planning to (i) purchase an unquoted commercial radio company and (ii) sell all of its shares in an unquoted newspaper company via a Management Buy Out (MBO). In part 1.1(a), for twelve marks, candidates were required to calculate the value of the target company, using five different methods. Part 1.1(b) was worth eight marks and asked candidates to advise on a suitable price range for the purchase of the target company. Part 1.2(a), for twelve marks, tested shareholder value analysis (SVA). Candidates were asked to calculate the value of the newspaper company's equity using SVA analysis. Finally, for three marks, part 1.2(b) required candidates to outline how management could raise funds for an MBO.

| 1.1(a) | | | | | Marks |
|--|---|----------------------|--------|----------------------|-------|
| | | Total Value £'000 | | Value per share £ | |
| P/E ratio | £6,391,000 x 8.5 = | 54,324 | /3,500 | 15.52 | 1.5 |
| | Lower marketability (25% discount, say) | | | 11.64 | 0.5 |
| Dividend yield | £1,750,000/5% = | 35,000 | /3,500 | 10.00 | 1.5 |
| | Lower marketability (25% discount, say) | | | 7.50 | 0.5 |
| Enterprise value | £'000 | | | | |
| Profit before interest & tax | 8,100 | | | | 1 |
| Depreciation | 3,500 | | | | 1 |
| Amortisation | <u>1,200</u> | | | | 1 |
| EBITDA | <u>12,800</u> x 6.5 = | 83,200 | | | 1 |
| less: Debt at MV | 8,000 x £110% = | <u>(8,800)</u> | | | 1 |
| | | <u>74,400</u> | /3,500 | 21.26 | |
| | Lower marketability (25% discount, say) | | | 15.94 | 0.5 |
| Net Assets – historic cost | | | | | |
| Ordinary share capital | | 3,500 | | | |
| Retained earnings | | <u>27,206</u> | | | |
| | | <u>30,706</u> | /3,500 | 8.77 | 1.0 |
| Net Assets – revalued | | | | | |
| Historic cost (as above) | | 30,706 | | | |
| Non current assets (£37,800 - £36,310) | | 1,490 | | | |
| Current assets (£4,200 – £4,316) | | (116) | | | |
| Debentures (£8,000 - £8,800) | | <u>(800)</u> | | | |
| | | <u>31,280</u> | /3,500 | 8.94 | 1.5 |

Many candidates did well in part 1.1(a) and some scored full marks. However, overall this was not answered as well as expected. Four of the five valuation methods asked for have been tested regularly and the calculations were not at all difficult (i.e. there were no 'tricks'). A considerable number of candidates were unable to calculate the company's Net Assets and/or Earnings figures, which was very disappointing. The Enterprise Value (EV) calculation was a recent addition to the syllabus. Overall this was answered reasonably well, but many candidates did not attempt it at all. This was very disappointing because EV had been discussed in detail at the 2017 tutor conference and tutors were made aware that this was going to feature in forthcoming valuation questions. They were also aware that valuation is tested on average once per year (with NPV in the other three papers). As NPV was tested in the March and June exams, valuation had to be a 50:50 for September. The question itself followed the examples in the study materials very closely.

| | |
|----------------------|----|
| Total possible marks | 12 |
| Maximum full marks | 12 |

| 1.1(b) | Marks |
|---|--------|
| Asset valuations are the lowest. They are historic figures - Balance Sheet-based, no intangibles. Merikan is buying Coastal to run it, not break it up P/E and EV are most relevant – forward-looking and based on profits/earnings. Dividend yield is OK, but it is a 100% purchase and the yield calculation is only relevant for minority interests. Also it ignores growth. So a price range of £12 to £16 per share looks about right | 7 1 |
| Part 1.1(b) was, overall, done well, but to score high marks here candidates needed to consolidate valuation theory with the figures that they had calculated. | |
| Total possible marks | 8 |
| Maximum full marks | 8 |

| 1.2(a) | Marks | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------|-------|-------|-------|----------------|----------------|--|--|----|----|----|----|----|--|-------|------|------|------|------|------|---|------------------|--|-----|-----|-----|-----|---|-----------|--|-------|-------|-------|-------|---|--------------|--|-----|-----|-----|-----|---|----------------------|--|-----|-----|-----|-----|--|--------------------------------|--|-------|-------|-------|-------|---|--------------------------------|--|-------|-------|-----|-----|---|-----------------------------|--|-------|-------|-------|-----|---|-----------------|--|-----|-----|-----|-----|--|----------------------|--|-------|-------|-------|-------|--|--|--|--|--|--|-----|--|--|--|--|--|--|-----|-----|----------------|--|-----|-----|-----|------|-----|---------------------|--|--|--|--|------|--|------------------------------|--|--|--|--|-----|---|-----------------------------------|--|--|--|--|-------|---|------------------------|--|--|--|--|-------------|--|--|
| <table border="1"> <thead> <tr> <th></th> <th>2017</th> <th>2018</th> <th>2019</th> <th>2020</th> <th>Terminal Value</th> <th></th> </tr> <tr> <th></th> <th>£m</th> <th>£m</th> <th>£m</th> <th>£m</th> <th>£m</th> <th></th> </tr> </thead> <tbody> <tr> <td>Sales</td> <td>70.0</td> <td>73.5</td> <td>75.7</td> <td>77.2</td> <td>77.2</td> <td>1</td> </tr> <tr> <td>Operating margin</td> <td></td> <td>5.9</td> <td>6.8</td> <td>6.9</td> <td>6.9</td> <td>1</td> </tr> <tr> <td>Tax (17%)</td> <td></td> <td>(1.0)</td> <td>(1.2)</td> <td>(1.2)</td> <td>(1.2)</td> <td>1</td> </tr> <tr> <td>Depreciation</td> <td></td> <td>1.5</td> <td>1.5</td> <td>1.5</td> <td>1.5</td> <td>1</td> </tr> <tr> <td>Operating cash flows</td> <td></td> <td>6.4</td> <td>7.2</td> <td>7.3</td> <td>7.3</td> <td></td> </tr> <tr> <td>Replacement non-current assets</td> <td></td> <td>(1.5)</td> <td>(1.5)</td> <td>(1.5)</td> <td>(1.5)</td> <td>1</td> </tr> <tr> <td>Incremental non-current assets</td> <td></td> <td>(0.2)</td> <td>(0.1)</td> <td>0.0</td> <td>0.0</td> <td>1</td> </tr> <tr> <td>Incremental working capital</td> <td></td> <td>(0.2)</td> <td>(0.1)</td> <td>(0.1)</td> <td>0.0</td> <td>1</td> </tr> <tr> <td>Free cash flows</td> <td></td> <td>4.5</td> <td>5.4</td> <td>5.7</td> <td>5.8</td> <td></td> </tr> <tr> <td>Discount factor (8%)</td> <td></td> <td>0.926</td> <td>0.857</td> <td>0.794</td> <td>0.794</td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td>4.6</td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td>/8%</td> <td>2.5</td> </tr> <tr> <td>Present values</td> <td></td> <td>4.2</td> <td>4.7</td> <td>4.5</td> <td>57.2</td> <td>0.5</td> </tr> <tr> <td>Total present value</td> <td></td> <td></td> <td></td> <td></td> <td>70.6</td> <td></td> </tr> <tr> <td>plus: Short-term investments</td> <td></td> <td></td> <td></td> <td></td> <td>0.7</td> <td>1</td> </tr> <tr> <td>less: Long-term debt (£10m x 95%)</td> <td></td> <td></td> <td></td> <td></td> <td>(9.5)</td> <td>1</td> </tr> <tr> <td>Market value of equity</td> <td></td> <td></td> <td></td> <td></td> <td><u>61.8</u></td> <td></td> </tr> </tbody> </table> | | 2017 | 2018 | 2019 | 2020 | Terminal Value | | | £m | £m | £m | £m | £m | | Sales | 70.0 | 73.5 | 75.7 | 77.2 | 77.2 | 1 | Operating margin | | 5.9 | 6.8 | 6.9 | 6.9 | 1 | Tax (17%) | | (1.0) | (1.2) | (1.2) | (1.2) | 1 | Depreciation | | 1.5 | 1.5 | 1.5 | 1.5 | 1 | Operating cash flows | | 6.4 | 7.2 | 7.3 | 7.3 | | Replacement non-current assets | | (1.5) | (1.5) | (1.5) | (1.5) | 1 | Incremental non-current assets | | (0.2) | (0.1) | 0.0 | 0.0 | 1 | Incremental working capital | | (0.2) | (0.1) | (0.1) | 0.0 | 1 | Free cash flows | | 4.5 | 5.4 | 5.7 | 5.8 | | Discount factor (8%) | | 0.926 | 0.857 | 0.794 | 0.794 | | | | | | | 4.6 | | | | | | | /8% | 2.5 | Present values | | 4.2 | 4.7 | 4.5 | 57.2 | 0.5 | Total present value | | | | | 70.6 | | plus: Short-term investments | | | | | 0.7 | 1 | less: Long-term debt (£10m x 95%) | | | | | (9.5) | 1 | Market value of equity | | | | | <u>61.8</u> | | |
| | 2017 | 2018 | 2019 | 2020 | Terminal Value | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | £m | £m | £m | £m | £m | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sales | 70.0 | 73.5 | 75.7 | 77.2 | 77.2 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Operating margin | | 5.9 | 6.8 | 6.9 | 6.9 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tax (17%) | | (1.0) | (1.2) | (1.2) | (1.2) | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Depreciation | | 1.5 | 1.5 | 1.5 | 1.5 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Operating cash flows | | 6.4 | 7.2 | 7.3 | 7.3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Replacement non-current assets | | (1.5) | (1.5) | (1.5) | (1.5) | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Incremental non-current assets | | (0.2) | (0.1) | 0.0 | 0.0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Incremental working capital | | (0.2) | (0.1) | (0.1) | 0.0 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Free cash flows | | 4.5 | 5.4 | 5.7 | 5.8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Discount factor (8%) | | 0.926 | 0.857 | 0.794 | 0.794 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | 4.6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | /8% | 2.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Present values | | 4.2 | 4.7 | 4.5 | 57.2 | 0.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total present value | | | | | 70.6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| plus: Short-term investments | | | | | 0.7 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| less: Long-term debt (£10m x 95%) | | | | | (9.5) | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Market value of equity | | | | | <u>61.8</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| So GB's equity is worth approximately £61.8m | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| For part 1.2(a), as in the two previous parts, there was a wide range of answers. Some candidates did really well here, whilst others produced very little. The figures themselves were not that difficult and a methodical approach (bear in mind that SVA has been examined before) would have generated a good mark. There was evidence of time pressure i.e. there were many incomplete answers (more than the previous occasion that this topic had been set). | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total possible marks | 12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Maximum full marks | 12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| 1.2(b) | Marks |
|---|-------------|
| Methods by which management might fund its MBO: From management's equity. From venture capitalists – via equity and debt. Borrowing from bank(s) - debt. | 1 1 1 |
| Part 1.2(b) was done well by most candidates. A similar question to this was set recently, but many candidates did poorly because they failed to concentrate their answers on the directors behind the MBO, rather than the company itself. | |
| Total possible marks Maximum full marks | 3 3 |

Question 2

Total marks: 35

General comments

This question was poorly done and had the lowest percentage mark on the paper. The majority of candidates failed to reach a “pass” standard in the question.

This was a six-part question that tested the candidates’ understanding of the financing options element of the syllabus and there was also a small section with an ethics element to it.

It was based around a UK-listed car manufacturer. The company was considering investing in (i) a computerised manufacturing system and (ii) the development of driverless cars. In part 2.1 of the question, for ten marks, candidates were required to calculate the company’s current WACC figure. Part 2.2, for three marks, tested candidates’ understanding of the pricing of debentures and asked them to calculate the current market value of redeemable debt when given a yield figure. Part 2.3, for five marks, tested candidates’ understanding of which WACC to use in the appraisal of the first investment. Part 2.4 examined the Ethical Guide and was worth three marks. Part 2.5, for ten marks, examined the CAPM. Candidates had to demonstrate that they understood how (and why) to calculate a cost of capital figure when a company is diversifying. Finally, for four marks, candidates were required to explain the basic tenets of the Efficient Market Hypothesis within the scenario given.

| 2.1 | | | | | | | Marks |
|--|----------------------------|--|-------------------------|------------------|---------------------|-------|-------|
| <u>Cost of equity (k_e) =</u> | $\frac{(d_1) + g}{MV}$ | $\frac{(\pounds 5,440 \times 1.03)}{\pounds 65,600} + 3\%$ | | 11.54% | | | 2 |
| <u>Cost of preference shares (k_p)</u> | $\frac{d}{MV}$ | $\frac{\pounds 640}{\pounds 10,800}$ | | 5.93% | | | 1 |
| <u>Cost of irredeemable debt (k_{di})</u> | | $\frac{(\pounds 275 \times 83\%)}{\pounds 6,000}$ | | 3.80% | | | 2 |
| <u>Cost of redeemable debt (k_{dr})</u> | | | | | | | |
| Year | Cash flow £'000 | 4% factor | PV £'000 | 5% factor | PV £'000 | | |
| 0 | (4,200) | 1.000 | (4,200.0) | 1.000 | (4,200.0) | | |
| 1-3 | 240 | 2.775 | 666.0 | 2.723 | 653.5 | | |
| 3 | 4,000 | 0.889 | 3,556.0 | 0.864 | 3,456.0 | | |
| | | NPV | <u>22.0</u> | NPV | <u>(90.5)</u> | | 2 |
| IRR = 4% + (22/(22 + 90.5)) = | | | | | | 4.20% | 1 |
| less: Tax at 17% (4.20% x 83%) = | | | | | | 3.48% | 1 |
| WACC | | | | | | | |
| | £'000 | Total MV's £'000 | Cost x weighting | | WACC | | |
| Equity | | 65,600 | 11.54% x 65,600/86,600 | | 8.74% | | |
| Pref. shares | 10,800 | | 5.93% x 10,800/86,600 | 0.74% | | | |
| Irredeemable debt | 6,000 | | 3.80% x 6,000/86,600 | 0.26% | | | |
| Redeemable debt | <u>4,200</u> | | 3.48% x 4,200/86,600 | <u>0.17%</u> | | | |
| | | 21,000 | | | 1.17% | | |
| Total market value | | <u>86,600</u> | | | <u>9.91%</u> | | 1 |
| There were many very good answers to part 2.1 and candidates secured the full (ten) marks available. The calculation of WACC has been examined frequently. However, in this exam candidates were, nor for the first time, given total figures, rather than unit figures, to work with. This flummoxed a considerable number of candidates, i.e. many candidates, when given the total nominal value and the nominal value per share or debenture, were incapable of deducing the number of shares or debentures in issue. Also a significant number of them altered the share and debt values to make them ex-div, despite the fact that the question stated that all dividends and interest due for the year had already been paid. | | | | | | | |
| Total possible marks | | | | | | | 10 |
| Maximum full marks | | | | | | | 10 |

| 2.2 | | | | Marks |
|---|----------------------------|------------------|---------------------|------------|
| From 2.1 above | | | | |
| Year | Cash flow £'000 | 5% factor | PV £'000 | |
| 1-3 | 240 | 2.723 | 653.5 | |
| 3 | 4,000 | 0.864 | 3,456.0 | |
| | | Present value | <u>4,109.5</u> | |
| Thus current market value would be £4,109.5/£4,000 = | | | | £102.74% 2 |
| Yield increases to 5% and market value falls to £102.74%, i.e. it's an inverse relationship | | | | 1 |
| Part 2.2 was a good test of candidates' understanding of the market price and yield of redeemable debt. Generally, it was answered very poorly. Many candidates commented that if the redemption yield of the debt were to increase then so would the price of that debt, thus totally misunderstanding the relationship between required return and value. This topic has been tested a number of times in recent exams. | | | | |
| Total possible marks | | | | 3 |
| Maximum full marks | | | | 3 |

| 2.3 | | Marks |
|---|--|-------|
| When using WACC to appraise projects the following assumptions are implied: | | |
| <ol style="list-style-type: none"> 1. Ramsey's historic proportions of debt and equity are not to be changed 2. Ramsey's systematic business risk is not to be changed 3. The finance is not project-specific (e.g. cheap government loans) | | |
| In this case the finance is of a material size, i.e. 11% of total funds at market value (£9.5m/£86.6m) and the historic gearing does not appear to be met (it's 50:50 ignoring project NPV). The systematic business risk, as far as we're aware, does not change as it's still the same industry. It's not project-specific finance. Therefore unwise to use existing WACC but after-tax cost of bank loan isn't WACC either as it ignores the required returns of shareholders. | | 5 |
| Candidates' responses to part 2.3 were also very disappointing. Too many candidates restricted their answers to a discussion about the impact on the company's gearing levels, without taking into account the wider aspects of when to employ the current WACC figure. Again, this topic has been examined frequently in the past. | | |
| Total possible marks | | 5 |
| Maximum full marks | | 5 |

| 2.4 | | Marks |
|--|--|-------|
| Ethical guidance – key areas of ethical concern regarding the press release | | |
| Integrity – members need to show honesty, fair dealing, truthfulness. | | |
| Objectivity – members must not succumb to the undue influence of others. | | |
| Interest of shareholders and owners must be taken into account – members must not let their own self-interest influence their actions. | | 3 |
| Part 2.4, as expected, was answered well. | | |
| Total possible marks | | 3 |
| Maximum full marks | | 3 |

| 2.5 | Marks |
|--|--------------|
| New market geared beta = | 2.10 |
| New market ungeared beta = $\frac{(2.10 \times 72)}{(72 + (16 \times 83\%))} = \frac{(2.10 \times 72)}{85.28}$ | 1.77 |
| Ramsey's geared beta = $\frac{1.77 \times (\pounds 65.6\text{m} + \pounds 10.8\text{m} + (\pounds 10.2\text{m} \times 83\%))}{\pounds 65.6\text{m}}$ | 2.29 |
| So, cost of equity = $(2.29 \times (9.15\% - 2.25\%)) + 2.25 =$ | 18.05% |
| Cost of debt = 9% x 83% | 7.47% |
| WACC = $(18.05\% \times \pounds 65.6\text{m}/86.6\text{m}) + (7.47\% \times \pounds 21.0\text{m}/\pounds 86.6\text{m}) =$ | 15.48% |
| It would be unwise to use the existing WACC (9.91%) as Ramsey's plan involves diversification and therefore a change in the level of systematic risk (beta rises to 2.29 from 1.25). Thus a new WACC must be calculated. Systematic risk is accounted for by taking into account the beta of the driverless cars market and this is then adjusted to eliminate the financial risk (level of gearing) in that market. The resultant ungeared beta is then "re-gearred" by taking into account the level of gearing of the new funds being raised. | 3 |
| Cost of new debt (which is higher than existing because of the increased risk discussed above) is used. | 1 |
| Using this, the new WACC can be calculated. | |
| Part 2.5 has been examined on a number of occasions recently and candidates should be well used to the approach that is required. Most candidates scored well with the de-gearing and re-gearing calculations, but only a few were able to work through to the end of the calculations, which was disappointing. | |
| Total possible marks | 10 |
| Maximum full marks | 10 |

| 2.6 | Marks |
|---|--------------|
| Markets set prices based on information available. If the market "takes fright" at the proposed investment into driverless cars then the MV of Ramsey's shares will fall and may not recover. It all depends on the market's view of the company's likely future success. | |
| Efficiency does not mean that prices return to a "normal level". Markets have no memory. Efficiency means that shares cannot be bought cheaply and then sold quickly at a profit. Share prices are "fair" and investment returns are those expected for the risks undertaken. | 4 |
| Part 2.6 caught out the majority of candidates here - they were unable to apply EMH theory to this practical example. Responses that centred on the three forms of efficiency and/or behavioural aspects will have scored poorly. | |
| Total possible marks | 4 |
| Maximum full marks | 4 |

Question 3**Total marks: 30****General comments**

Most candidates demonstrated a reasonable understanding of this area of the syllabus and this question had the highest average mark on the paper

This was a six-part question which tested the candidates' understanding of the risk management element of the syllabus.

The scenario was centred on a UK-based manufacturer of industrial pumps. The company was considering hedging its exposure to (i) foreign exchange rate risk on a C\$5.2 million receipt (three months ahead) from a Canadian customer and (ii) a fall in the value of a large quoted shareholding. Part 3.1 was worth nine marks and asked candidates to calculate the sterling receipt arising from a list of hedging techniques that could be applied to the Canadian dollar receipt. In part 3.2, for seven marks, candidates were required to advise the company's board whether it should hedge the dollar receipt. Part 3.3, for three marks, required candidates to explain, from the given scenario, economic risk. In part 3.4 (four marks) candidates were required to explain the advantages and disadvantages of using currency futures rather than a forward contract to manage foreign exchange risk. Part 3.5, for four marks, asked candidates, with reference to its large quoted shareholding, to calculate the intrinsic value and time value of traded options, for which various prices were given. Finally in part 3.6, for three marks, candidates were asked to explain the three factors that affect the time value of traded options.

| 3.1 | | | | Marks |
|---|------------------------|---------------------|------------------|------------------|
| | | | £ | £ |
| (a) OTC currency option | | | | |
| Put option | | | | 1 |
| | <u>C\$5,200,000</u> | | 3,200,985 | 1 |
| | 1.6245 | | | |
| Cost | <u>C\$5,200,000</u> | = 52,000 x £0.75 | <u>(39,000)</u> | 1 |
| | 100 | | 3,161,985 | |
| (b) Forward contract | | | | 0.5+0.5 |
| 1.6385 + 0.0085 = 1.6470 | <u>C\$5,200,000</u> | | 3,157,256 | |
| | 1.6470 | | | |
| Fee | <u>C\$5,200,000</u> | = 52,000 x £0.35 | <u>(18,200)</u> | 1 |
| | 100 | | 3,139,056 | |
| (c) Money market hedge | | | | |
| Borrow C\$ | <u>C\$5,200,000</u> | £5,133,268 | | 1 |
| | 1.013 | | | |
| Convert @ spot | | <u>£5,133,268</u> | 3,132,907 | 1 |
| | | 1.6385 | | |
| Lend @ UK | | | 3,132,907 | |
| | | | x | |
| | | | 1.007 | 3,154,837 |
| (d) Strengthening £ | | | | 1 |
| | 1.6385 x 1.05 = 1.7204 | <u>C\$5,200,000</u> | 3,022,509 | 1 |
| | | 1.7204 | | |
| Foreign exchange risk is a regular topic in this examination. As expected part 3.1 was generally answered well. However, many candidates lost marks unnecessarily, e.g. choosing a call rather than a put option, failing to deal with fees (a cost) correctly, choosing the wrong interest rates for the MMH. Over half of the candidates believed that a strengthening £ meant getting less foreign currency. | | | | |
| Total possible marks | | | | 9 |
| Maximum full marks | | | | 9 |

| 3.2 | | | Marks |
|---|-------------------------------|------------|--------------|
| Conversion at spot rate | <u>C\$5,200,000</u> 1.6385 | £3,173,634 | 1 |
| If £ strengthens | | 3,022,509 | |
| Option | | 3,161,985 | |
| Forward | | 3,139,056 | |
| MMH | | 3,154,837 | |
| <p>The current spot rate gives best result. The worst result is from the strengthening £ <u>and</u> the forward contract discount predicts a strengthening of the £. C\$ is depreciating, £ strengthening, which is bad for UK exporters. Forward contract is certain. MMH is certain. Option gives flexibility but is expensive.</p> | | | 6 |
| Generally part 3.2 was answered adequately, but bearing in mind how frequently this is examined, it was disappointing. Too few candidates went beyond only comparing the best outcome at each rate. Most answers here needed to demonstrate a deeper understanding of the issues involved. Many candidates stated, wrongly, that interest rates indicated that sterling would weaken. Also too few commented on the (negative) impact of a stronger pound on an exporter (as per the question). | | | |
| Total possible marks | | | 7 |
| Maximum full marks | | | 7 |

| 3.3 | | Marks |
|---|--|--------------|
| Jenson's imports are purchased mostly in euros. If exports were, for example, mostly in Canadian dollars then Jenson would be disadvantaged by both a strong euro and a weak dollar (as in 3.1 and 3.2 above). | | 3 |
| In part 3.3 few candidates scored full marks. Those that did, explained how a strengthening pound (against the Canadian dollar) when exporting and a weakening pound (against the euro) when importing would both be bad for the company in question. | | |
| Total possible marks | | 3 |
| Maximum full marks | | 3 |

| 3.4 | | Marks |
|--|--|--------------|
| <u>Advantages of using currency futures over forward contracts:</u> | | |
| • Lower transaction costs. | | 1 |
| • The exact date of receipt or payment does not have to be known. | | 1 |
| <u>Disadvantages of using currency futures over forward contracts:</u> | | |
| • The contracts cannot be tailored to user's exact requirements. | | 1 |
| • Hedge inefficiencies (whole number of contracts and basis risk) may occur. | | 1 |
| • Limited number of currencies can make use of futures contracts. | | 1 |
| • If neither currency is \$US then this can complicate matters. | | 1 |
| Part 3.4 was generally answered well, but many candidates just listed the advantages/disadvantages of currency futures and/or a forward contract rather than answer the question as set. | | |
| Total possible marks | | 6 |
| Maximum full marks | | 4 |

